

REMARKS

In the Office Action dated September 10, 2003, the Examiner rejected claims 106-114 under 35 U.S.C. § 112, first paragraph; rejected claims 34, 39-41, 53, 54, 59-61, 64, 66, 68, 70, 71, 73, 75, 77, 78, 80, 82, 84, 85, 87, 89, 91, 92, 94, 96, 98, 99, 101, and 103-105 under 35 U.S.C. §103(a) as unpatentable over Gaines (U.S. Patent No. 5,961,582) in view of Hamilton et al. (U.S. Patent No. 6, 009,464); and rejected claims 35-38, 55-58, 65, 67, 72, 74, 79, 81, 86, 88, 93, 95, 100, and 102 under 35 U.S.C. §103(a) as unpatentable over Gaines in view of Hamilton et al. as applied to claims 34 and 54, and further in view of Priven et al. (U.S. Patent No. 5,327,559).

By this amendment Applicants have cancelled claims 106-114, without prejudice or disclaimer, and amended the specification and claim 53 to correct minor typographical errors. In view of these amendments and the remarks that follow, Applicants respectfully traverse the rejections of claims 34-41, 53-61, 64-68, 70-75, 77-82, 84-89, 91-96, and 98-114 under 35 U.S.C. §§ 112 and 103(a).

I. Withdrawn Claims 44-52.

Regarding non-elected claims 44-52, Applicants are not required to cancel these claims at this stage of prosecution of this application. See M.P.E.P. § 821 (8th ed., rev. Feb. 2003). For example, Applicants have a right to conform the non-elected claims to embrace an allowed generic claim. See M.P.E.P. §821.02. Accordingly, Applicants will consider canceling and/or amending non-elected claims 44-52 upon receiving a Notice of Allowance for this application.

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II. Claim Rejections Under 35 U.S.C. § 112, first paragraph.

Applicants traverse the Examiner's rejection of claims 106-114 as based on a non-enabling disclosure and submit that there is a written description of the recitations of these claims in the application as filed. Despite this traversal, however, Applicants have cancelled claims 106-114 without prejudice or disclaimer, in an effort to advance prosecution of this application.

III. Claim Rejections Under 35 U.S.C. § 103(a).

The rejection of claims 34-41, 53-61, 64-68, 70-75, 77-82, 84-89, 91-96, and 98-105 under 35 U.S.C. § 103(a) is respectfully traversed for the following reasons.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. See M.P.E.P. § 2143.03. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. See M.P.E.P. § 2143. Third, a reasonable expectation of success must exist. See M.P.E.P. § 2143.02. Moreover, each of these requirements must "be found in the prior art, and not based on applicant's disclosure." M.P.E.P. § 2143.

A. The Rejection of Claims 34, 39-41, 53, 54, 59-61, 64, 66, 68, 70, 71, 73, 75, 77, 78, 80, 82, 84, 85, 87, 89, 91, 92, 94, 96, 98, 99, 101, and 103-105.

Claims 34 and 54 recite a combination, which includes, *inter alia*, "sending a portion of the code from the first program to the second program, wherein the portion of

the code is based on stub code obtained from the second abstract computing machine.” The Examiner admitted that Gaines fails to teach or suggest sending code “based on stub code obtained from the second abstract computing machine,” as recited in claims 34 and 54. Office Action ¶ 5, at 4. The Examiner, however, asserted that Hamilton et al. makes up for the deficiencies of Gaines. Applicant respectfully disagrees.

Neither Gaines nor Hamilton et al., alone or in combination, teach or suggest at least “sending a portion of the code from the first program to the second program, wherein the portion of the code is based on stub code obtained from the second abstract computing machine,” as recited in claims 34 and 54. Contrary to the Examiner’s allegation, Hamilton et al. does not teach or suggest at least a system “wherein the portion of the code is based on stub code obtained from the second abstract computing machine,” as recited in claims 34 and 54. Hamilton et al. discloses a method for enabling a network client to communicate with a network server, in part through the use of stubs. See Hamilton et al., col. 6, lines 33-48. The stubs received by the network client in Hamilton et al., however, do not come from the network server. Instead, the network client in Hamilton et al. receives stubs and ORB specific code from a separate document server (430). See Hamilton et al., Fig. 6.

In contrast, Applicants recite “stub code obtained from the second abstract computing machine,” *i.e.* the computing machine running the second program. Therefore, because the stub in Hamilton et al. is obtained from the document server and not the network server, Hamilton et al. fails to teach or suggest at least a system “wherein the portion of the code is based on stub code obtained from the second abstract computing machine.” Accordingly, neither Gaines nor Hamilton et al., alone or

in combination, teach or suggest at least "sending a portion of the code from the first program to the second program, wherein the portion of the code is based on stub code obtained from the second abstract computing machine," as recited in claims 34 and 54.

Moreover, there is no motivation to combine the references. The Examiner asserted that because Gaines desires to run programs in a host-independent manner, and Hamilton et al. provides a mechanism to do so, that one of ordinary skill in the art would have been motivated to use the mechanism of Hamilton et al. to provide host-independence in Gaines. Office Action ¶ 5, at 4. Applicant respectfully disagrees. Although an objective of the system disclosed in Gaines is to execute programs in a host-independent manner, it achieves this objective by providing a portable virtual operating system. See Gaines, Abstract; col. 2, lines 52-53; col. 5, lines 4-18. There is no suggestion in Gaines that it would be desirable or even feasible to achieve host-independence through the use of stubs. In fact, Gaines teaches away from the use of a "virtual machine," as used in Hamilton et al. and states that such systems are inadequate in achieving the desired goal of host-independence. See Gaines, col. 3, lines 52-65; Hamilton et al., col. 6, lines 49-58 & Fig. 6. Accordingly, one skilled in the art would not have been motivated to combine the references.

For at least the foregoing reasons, claims 34 and 54 are patentable over Gaines and Hamilton et al. Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

Claims 39-41 and 59-61 depend upon claims 34 and 54, respectfully. As explained above, claims 34 and 54 are patentable over Gaines and Hamilton et al. Accordingly, claims 39-41 and 59-61 are patentable over Gaines and Hamilton et al. for

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at least the reasons given with respect to claims 34 and 54. Applicants therefore request that the rejection of claims 39-41 and 59-61 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

Claim 53 includes recitations similar to those of claims 34 and 54; namely, "sending a portion of the code from the first program to the second program, wherein the portion of the code is based on stub code obtained from the second abstract computing machine." As explained above, neither Gaines nor Hamilton et al., alone or in combination, teach or suggest at least "sending a portion of the code from the first program to the second program, wherein the portion of the code is based on stub code obtained from the second abstract computing machine," and furthermore, there is no motivation to combine the references. Because claim 53 is patentable over Gaines and Hamilton et al., Applicants respectfully request that the rejection of claim 53 under 35 U.S.C. § 103(a) be withdrawn and the claim allowed.

Claims 64, 78, and 92 recite a combination, which includes, *inter alia*, "sending a portion of the first code from the first computing environment to the second computing environment based on a stub class instance obtained from the second computing environment." The Examiner admitted that Gaines does not teach or suggest sending code based on a stub obtained from the second computing environment, (See Office Action ¶ 5, at 4), and implicitly admitted that Gaines also fails to teach or suggest sending code based on a stub class instance (See Office Action ¶ 5, at 5). The Examiner, however, asserted that Hamilton et al. makes up for the deficiencies of Gaines. Applicant respectfully disagrees.

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Neither Gaines nor Hamilton et al., alone or in combination, teach or suggest at least "sending a portion of the first code from the first computing environment to the second computing environment based on a stub class instance obtained from the second computing environment," as recited in claims 64, 78, and 92. Contrary to the Examiner's allegation, Hamilton et al. does not teach or suggest at least sending a portion of code "based on a stub class instance obtained from the second computing environment," as recited in claims 64, 78, and 92. As explained above, Hamilton et al. discloses a method for enabling a network client to communicate with a network server, in part through the use of stubs. See Hamilton et al., col. 6, lines 33-48. Hamilton et al., however, does not disclose the use of stub class instances obtained from a computer environment which receives a portion of code from a first computer environment.

In alleging that Hamilton et al. discloses the use of stub class instances, the Examiner relied on the fact that the code server in Hamilton et al. forms Java applets. See Office Action ¶ 5, at 5 (citing Hamilton et al., col. 5, lines 50-65). The Java applets identified in Hamilton et al., however, are created by a code server, which is part of the document server, not the network server. See Hamilton et al., col. 5, lines 50-65. Additionally, the virtual machine that implements Java Language bytecodes is located on the network client, not the network server. See Hamilton et al., col 6, lines 49-58. Thus, Hamilton et al. does not teach or suggest at least sending a portion of code "based on a stub class instance obtained from the second computing environment." Accordingly, neither Gaines nor Hamilton et al., alone or in combination, teach or suggest at least "sending a portion of the first code from the first computing environment

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to the second computing environment based on a stub class instance obtained from the second computing environment," as recited in claims 64, 78, and 92.

Moreover, as previously discussed with respect to claims 34 and 54, there is no motivation to combine Gaines and Hamilton et al., in fact, Gaines teaches away from such a combination.

For at least the foregoing reasons, claims 64, 78, and 92 are patentable over Gaines and Hamilton et al. Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S. C. §103(a) be withdrawn and the claims allowed.

Claims 66, 68, and 70; 80, 82, and 84; and 94, 96, and 98 depend upon claims 64, 78, and 92, respectfully. As explained above, claims 64, 78, and 92 are patentable over Gaines and Hamilton et al. Accordingly, claims 66, 68, 70, 80, 82, 84, 94, 96, and 98 are patentable over Gaines and Hamilton et al. for at least the reasons given with respect to claims 64, 78, and 92. Applicant therefore requests that the rejection of claims 66, 68, 70, 80, 82, 84, 94, 96, and 98 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

Claims 71, 85, and 99 include recitations similar to those of claims 64, 78, and 92; namely, "receiving a portion of first code included in a program executing in the first computing environment based on a stub class instance provided to the first computing environment by the second computing environment." As explained above, neither Gaines nor Hamilton et al., alone or in combination, teach or suggest at least sending or receiving code "based on a stub class instance provided to the first computing environment by the second computing environment." Furthermore, as previously

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discussed with respect to claims 34 and 54, there is no motivation to combine the references. Because claims 71, 85, and 99 are patentable over Gaines and Hamilton et al., Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 103(a) be withdrawn and the claim allowed.

Claims 73, 75, and 77; 87, 89, and 91; and 101 and 103-105 depend upon claims 71, 85, and 99, respectfully. As explained above, claims 71, 85, and 99 are patentable over Gaines and Hamilton et al. Accordingly, claims 73, 75, 77, 87, 89, 91, 101, and 103-105 are patentable over Gaines and Hamilton et al. for at least the reasons given with respect to claims 71, 85, and 99. Applicant therefore requests that the rejection of claims 73, 75, 77, 87, 89, 91, 101, and 103-105 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

B. The Rejection of Claims 35-38, 55-58, 65, 67, 72, 74, 79, 81, 86, 88, 93, 95, 100, and 102.

Claims 35-38 and 55-58 depend upon claims 34 and 54, respectively. As explained above, claims 34 and 54 are patentable over Gaines and Hamilton et al. Accordingly, claims 35-38 and 55-58 are patentable over Gaines and Hamilton et al. for at least the same reasons given with respect to claims 34 and 54. Moreover, Priven et al. does not make up for the deficiencies of Gaines and Hamilton et al. because Priven et al. fails to teach or suggest at least "sending a portion of the code from the first program to the second program, wherein the portion of the code is based on stub code obtained from the second abstract computing machine." For at least the foregoing reasons, claims 35-38 and 55-58 are patentable over Gaines, Hamilton et al., and Priven et al. Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S. C. §103(a) be withdrawn and the claims allowed.

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Claims 65 and 67; 79 and 81; and 93 and 95 depend upon claims 64, 78, and 92, respectively. As explained above, claims 64, 78, and 92 are patentable over Gaines and Hamilton et al. Accordingly, claims 65, 67, 79, 81, 93, and 95 are patentable over Gaines and Hamilton et al. for at least the same reasons given with respect to claims 64, 78, and 92. Moreover, Priven et al. does not make up for the deficiencies of Gaines and Hamilton et al. because Priven et al. fails to teach or suggest at least "sending a portion of the first code from the first computing environment to the second computing environment based on a stub class instance obtained from the second computing environment." For at least the foregoing reasons, claims 65, 67, 79, 81, 93, and 95 are patentable over Gaines, Hamilton et al., and Priven et al. Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S. C. §103(a) be withdrawn and the claims allowed.

Claims 72 and 74; 86 and 88; and 100 and 102 depend upon claims 71, 85, and 99, respectively. As explained above, claims 71, 85, and 99 are patentable over Gaines and Hamilton et al. Accordingly, claims 72, 74, 86, 88, 100, and 102 are patentable over Gaines and Hamilton et al. for at least the same reasons given with respect to claims 71, 85, and 99. Moreover, Priven et al. does not make up for the deficiencies of Gaines and Hamilton et al. because Priven et al. fails to teach or suggest at least "receiving a portion of first code included in a program executing in the first computing environment based on a stub class instance provided to the first computing environment by the second computing environment." For at least the foregoing reasons, claims 72, 74, 86, 88, 100, and 102 are patentable over Gaines, Hamilton et al., and Priven et al.

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Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S. C. §103(a) be withdrawn and the claims allowed.

IV. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: December 9, 2003

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receiving a portion of first code included in a program executing in the first computing environment based on a stub class instance provided to the first computing environment by the second computing environment;

executing the portion of the first code; and

returning results of the executed portion of the first code to the first computing environment.

86. (Previously Presented) The computer-readable medium of claim 85, wherein receiving a portion of the first code includes:

receiving an object containing the portion of the first code.

87. (Previously Presented) The computer-readable medium of claim 85, wherein executing the portion of the first code includes:

invoking a function included in the second computing environment based on a parameter included in the portion of the first code.

88. (Previously Presented) The computer-readable medium of claim 85, wherein the portion of the first code is part of an object and executing the portion of the first code includes:

invoking a function included in the second computing environment; and

returning the object as a result of the invocation.

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89. (Previously Presented) The computer-readable medium of claim 85, further including:

providing to the first computing environment the stub class instance during runtime operations.

90. (Cancelled).

91. (Previously Presented) The computer-readable medium of claim 85, wherein returning results of the executed portion of the first code to the first computing environment includes:

returning the results to the program.

92. (Previously Presented) A system for executing code in a data processing system including a first computing environment and a second computing environment, the system comprising:

means for executing a first program including first code on the first computing environment;

means for sending a portion of the first code from the first computing environment to the second computing environment based on a stub class instance obtained from the second computing environment;

means for executing the portion of the first code on the second computing environment; and

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